## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003398 Address: 333 Burma Road **Date Inspected:** 30-Jun-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 1400 **Project Name:** SAS Superstructure **OSM Departure Time:** 2300 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** Skin plates

## **Summary of Items Observed:**

The names of ABF Certified Welding Inspector (CWI) are Mr. Jiang Zi Men, Mr. Lai Quan and Mr. Wu Gui Cai. Ultrasonic Testing (UT) on splice welds of skin plate (Tower Bay#2): Caltrans Quality Assurance Inspector (QAI) performed straight beam and angle beam QA UT on splice welds of skin plate. The metrical of splice weld plate is ASTM 709 345 wall thickness 45mm and the test surface has been cleaned. The weld numbered # ESD1-SA80B/E-11B, ESD1-SA80B/E-24B, ESD1-SA80B/E-12B and ESD1-SA80B/E-13B. All the welds inspected by Caltrans QAI were previously UT accepted by observed Zhenhua Port Machinery Co (ZPMC) NDT technicians. Based on Caltrans QA inspection, the splice welds appeared to be in general compliance with requirements of the Caltrans Special Provisions and AWS D1.5 2002 Sec.6. See QAI UT report for more details. Submerged Arc Welding (SAW) process on longitudinal stiffener plate and skin plate (Tower Bay#2): Caltrans QAI observed ZPMC welding operators performed semi-automatic SAW on the splice weld of ASTM 709 345 longitudinal stiffener plate P589A to P589B with 60mm wall thickness, weld# ESD1-SA227A/H-56B (Bay#2) skin plate P1287 to P1408 to P1285 to SA296 with 45mm wall thickness, weld# ESD1-SA296 C/E-86B, ESD1-SA296 C/E-85B, ESD1-SA296 C/E-82, ESD1-SA296 C/E-84 and ESD1-SA296 C/E-57B (Bay#2). The weld designed is a double -V-groove with welding conducted in the in flat position (1G) with proper 4.8mm diameter wire feed electrode JW3 and flux/J1-B, made by China Company and completed with approximate five pass. The parameters used for SAW welding of splice weld was conducted in accordance with Caltrans approved WPS-B-T-2221-B-U3. The semi-automatic SAW was monitored and recorded by ZPMC QC and ABF Certified Welding Inspector (CWI). Based on Caltrans QAI observations, no discrepancies were noted.

## **Summary of Conversations:**

As Note within the report above.

# WELDING INSPECTION REPORT

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# **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Wahbeh Mazen (818)292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Pau,Wai	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer